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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/506,626

09/03/2004

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EXAMINER

NALVEN, EMILY IRIS

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

03/31/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/506,626	TERADA, YUICHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	EMILY I. NALVEN	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/6/07.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Receipt of applicant's amendment on Dec 6, 2007 is acknowledged.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-15** are rejected under 35 U.S.C. 102(b) as being anticipated by Gunji et al. (US Patent Pub. 2002/0144513).

**In regard to claims 1 and 8**, Gunji et al. teach an indoor unit (100) of an air conditioner (see Fig. 1 and para. 54) comprising a ventilation fan (400), a heat exchanger having an approximate V-shape (500, 510, 520) (see Fig. 4 and para. 55) in which refrigerant flows that are connected thereto (para. 62) and which is disposed so as to cover the upper portion of the ventilation fan (400) (see Fig. 4) and a support unit (120) that supports the ventilation fan (400) wherein each portion of the support unit (121) is positioned at a height no higher of an apex of the ventilation fan (400) (see Fig. 3 and para 56 lines 5-8).

The recitation of “approximate inverted V-shape in cross-section” has been interpreted as a plurality of the heat exchangers combined to form a bent shape.

**In regard to claim 2**, Gunji et al. teach an indoor unit (100) of the air conditioner wherein the heat exchanger (500, 510, 520) is disposed so as to cover front, upper and rear portions of the ventilation fan (400) (see Fig. 12).

**In regard to claim 3**, Gunji et al. teach the indoor unit (100) of the air conditioner wherein the heat exchanger (500, 510, 520) is installed on the support unit (121) on which the ventilation fan (400) has already been installed (see Fig. 3 and Fig. 4).

**In regard to claim 4**, Gunji et al. teach the indoor unit (100) of the air conditioner comprising an electrical component box (140) that accommodates electrical components (see Fig. 12 and para. 56), and which is supported by the support unit (121) so as to be at the height no higher than the apex of the ventilation fan (400) and wherein the electrical component box (140) is installed on the support unit (120) (see Fig. 3 and Fig. 12).

**In regard to claim 5**, Gunji et al. teach the indoor unit (100) of the air conditioner wherein the ventilation fan (400) has a cylindrical shape (see Fig. 3 and Fig. 4) and is disposed so that a central thereof is horizontal (see Fig. 3) and the indoor unit further comprises a drive device (410) that rotatively drives the ventilation fan (400) and is disposed on the same axis as the ventilation fan (400) (see Fig. 3 and para. 57) wherein the electrical component box (140) is disposed so that the electrical components are lined up in the axial direction with the drive device (410) (see Fig. 3 and para 57).

**In regard to claim 6**, Gunji et al. teach the indoor unit (100) of the air conditioner further comprising a drive device (410) that rotatively drives the ventilation fan (400) (see Fig. 3 and para. 57) wherein the support unit (121) supports the ventilation fan (400) (see Fig. 3), the electrical component box (140) and the drive device (410) from below when viewed from the front support unit (121) (see Fig. 3 and Fig. 4 and para. 57) and the lower surface of the support unit (120) is formed to be flat (see Fig. 3). It is presumed to be that the ventilation fan (400), electrical component box (140) and drive device (410) all rest atop the support unit (121). The recitation of “flat” is interpreted to be anything that is horizontally level as illustrated in Fig. 3.

**In regard to claim 7**, Gunji et al. teach a method of assembling an indoor unit (100) of an air conditioner comprising a first step in which a ventilation fan (400) is installed on a support unit (121, 124 in combination) (see Fig. 3) in which each portion of the support unit (121, 124) are positioned at a height no higher than apex of the ventilation fan (400) or lower (see Fig. 2 and Fig. 3 and para 56 lines 5-8) when the ventilation fan (400) is supported thereon; a heat exchanger (500, 510, 520) that is connected to lines (129) in which refrigerant flows are installed (see para. 62) to the support unit (121, 124) (see Fig. 3) so as to cover an upper portion of the ventilation fan (400) (see para. 61) and a back surface member (110) that covers a back surface of the heat exchanger (500, 510, 520) and forms a back surface side air flow path (see Fig. 5).

**In regard to claim 9**, see the rejection for claim 2.

**In regard to claim 10**, Gunji et al. teach the support unit (121, 124) includes a discharge port (125) in communication with the ventilation fan (400) (see Fig. 5 and para 59 lines 1-4).

**In regard to claim 11**, Gunji et al. teach an upper casing (110, 210) arranged to fit to an upper region of the support unit (121, 124) (see Fig. 4 - attached at 128), such that the heat exchanger (500, 510, 520) is at least partially concealed by the support unit (121, 124) and upper casing (110, 210) (see Fig. 4).

**In regard to claim 12**, Gunji et al. teach a back surface member (200) fitted to the support unit (121, 124) (see Fig. 4) such that the heat exchanger (500, 510, 520) is concealed by the back surface member (200), the support unit (121, 124) and the upper casing (110, 210) (see Fig. 4).

**In regard to claim 13**, Gunji et al. teach a back surface member (110, 128) fitted to the support unit (121, 124) (see Fig. 4) and configured for installation to an indoor wall surface (see Fig. 1, Fig. 4 and para 54 lines 1-2).

**In regard to claim 14**, Gunji et al. teach an upper casing (110, 210) arranged to fit to an upper region of the support unit (121, 124) (see Fig. 4 - attached at 128), such that the heat exchanger (500, 510, 520) is concealed by the back surface member (200), support unit (121, 124) and upper casing (110, 210) (see Fig. 4).

**In regard to claim 15**, see the rejection for claim 12.

### ***Response to Arguments***

Applicant's arguments filed on Dec. 6, 2007 have been fully considered but they are not persuasive.

The applicant contends that the prior art of Gunji et al. do not meet the limitations of newly added limitations of claims 1,7 and 8. However, Gunji et al. do teach a support member (121) no higher than an apex of a fan (400) as is iterated in the body of this office action.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kenichi (EP 0816788 A2) teaches a V-shaped heat exchanger.

Price (US Patent No. 5,979,169) teaches an indoor and outdoor air-conditioner with a V-shaped heat exchanger.

Shindo et. al. (US Patent No. 6,782,707) teach an air conditioner with V-shaped heat exchangers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Iris Nalven whose telephone number is 571-272-3045. The examiner can normally be reached on Monday - Thursday 8 AM - 5:30 PM and on alternate Fridays 8 AM – 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisors, Cheryl J. Tyler can be reached on 571-272-4834 or Frantz Jules can be reached on 571-272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Emily Iris Nalven  
Art Unit 3744  
March 26, 2008  
/Emily Iris Nalven/

/Frantz F. Jules/

Supervisory Patent Examiner, Art Unit 3744